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THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:
Fred Christian Baij

Serial Number: 09/535,457

Filed: March 24, 2000

For: FRAMING LUMBER PRODUCTS AND METHODS

Group Art Unit: 3635

Examiner: Chi Q. Nguyen

APPEAL BRIEF 2

Hon. Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

ATTENTION: Board of Appeals and Interferences

APPELLANTS' BRIEF (37 CFR §1.192)

This appeal brief is submitted in furtherance of the Notice of Appeal filed on April 22, 2004, in the above identified application. This is a second instance of appeal. The first instance included Notice of Appeal filed June 19, 2002, and Appeal Brief filed August 19, 2002, and Reply Brief filed January 3, 2003, whereupon the examiner withdrew his rejection and instituted a new basis of rejection.

This Appeal Brief 2 contains the following items under the following headings and in the order set forth below (37 CFR §1.192(c)):

I hereby certify that this correspondence is being deposited with the U. S. Postal Service as 1st Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
ON June 22, 2004.

Glenn Graham
(Typed name of person
mailing paper and/or fee)

Signed: Glenn Graham

Date Signed: June 22, 2004

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I. REAL PARTY IN INTEREST (37 CFR §1.192(c)(1))

This application is not assigned. Accordingly, the real party in interest is the inventor, Fred Christian Baij.

II. RELATED APPEALS AND INTERFERENCES (37 CFR §1.192(c)(2))

There are no other current appeals or interferences known to appellants' representative that are related to the instant patent application. This application was earlier appealed by

Notice of Appeal dated June 19, 2002,
Appellant's Appeal Brief dated August 19, 2002,
Examiner's Answer dated November 5, 2002,
Appellant's Reply Brief dated January 3, 2003,

The examiner subsequently withdrew his rejection, and asserted new grounds of rejection in an Office Action dated 04/09/2003.

III. STATUS OF CLAIMS (37 CFR §1.192(c)(3))

The status of claims in this application is:

The claims in the application are Claims 1-77. Of these, Claims

12-22 and 31-64 are canceled;

none are withdrawn from consideration;

1-11, 23-30, 65-77 are pending;

none are allowed; and

1-11, 23-30, 65-77 are rejected.

The claims on appeal are Claims 1-11, 23-30 and 65-77.

IV. STATUS OF AMENDMENTS (37 CFR §1.192(c)(4))

The amendment filed January 22, 2001, was entered in response to a first Office Action.

According to the Advisory Action mailed 08/02/02, the amendment filed July 3, 2002, was entered for purposes of Appeal.

The amendment filed August 7, 2002, which amended only Claim 1, was not entered according to the Examiner's Answer dated 11/05/2002.

The amendment filed July 8, 2003 has been entered.

The amendment filed January 2, 2004 has been entered.

V. SUMMARY OF INVENTION (37 CFR §1.192(c)(5))

The present invention shown in FIGURES 1-6 is mainly described at page 13 lines 11-29; at page 14 line 35 to page 15 line 5; at page 15 lines 19-22; at page 16 lines 29-31; at page 17 lines 23-34; at page 18 line 25 to page 19 line 3; and at page 19 lines 18-27; and at page 21 lines 6-14, of the specification.

Generally, the invention comprehends framing lumber products such as dimensioned wood boards having visually conspicuous stud locator markings spaced along lengths of the boards. The visually conspicuous stud locator markings enable use of relatively lower skilled labor for laying out and assembling stud-framed walls in the

construction trades, and/or result in higher levels of accuracy, fewer mistakes, in assembling stud-framed walls.

Referring to FIGURE 6, visually conspicuous markings (12) on the marked lumber assist in, and facilitate, layout and assembly of an otherwise conventional frame wall comprising bottom plate (10BP), top plate (10TP), and a plurality of studs (24) extending between the bottom and top plates; where the ends of the studs are to be positioned at one or more of a limited number of regularly-spaced pre-determined stud spacings along the plates. Typical application of the invention is to use, as the top and bottom plates, respective pieces of the lumber bearing such markings.

As shown in, for example, FIGURES 1-3 and 6, visually conspicuous stud locator markings (12) define positions for placement, on the respective plate, of the ends of the studs which are to be mounted against the respective bottom plate or top plate. Typical such stud locator markings indicate where front (22F) and back (22B) surfaces of the studs are to intersect the respective plate (10). The stud markings (12) are spaced along the bottom plate (10BP) and along the top plate (10TP), at one or more of the pre-determined stud spacings. Preferred spacings for stud markings (12) are 8 inches, optionally 16 or 24 inches from each other. The 8-inch spacing enables the user to select spacings at any multiple of 8 inches. This is especially useful because standard spacings in the industry are 16 inches and 24 inches, both of which are multiples of 8 inches.

Typically, a given pair of leading and trailing markings for a given stud location are spaced apart by the thickness of the stud, plus a little more, so the marks are still visible with the stud in place (specification page 13 lines 25-29). Such post-assembly visibility provides assurance to an inspector that the studs are properly located.

It is well known that construction materials receive rough mechanical treatment at construction sites.

Each stud marking comprises marking material, for example ink, on a surface of the respective piece of lumber (10) (FIGURES 1-3), or a shallow cut or stamped impression in the piece of lumber (FIGURE 4).

By affixing the marking material directly to the lumber, e.g. by printing directly onto the lumber, such that the lumber is the substrate, the affinity between the mark and the lumber is increased over any marking material which is carried by a secondary substrate such as a length of tape, which secondary substrate is in some fashion affixed to the piece of lumber. Indeed, where the substrate is porous, e.g. wood, typical marking material such

as ink penetrates below the outer surface of the wood, into the pores of the substrate where the marking material is even more resistant to removal during the above noted typical rough mechanical treatment. Even where a more viscous material such as a grease-based product or wax-based product is used to make the markings, such material is known to penetrate below the outer surface of wood - whereby the resulting marking is again amenable to effective application in a rough-use environment.

By limiting the markings on the lumber piece such that the stud locator markings are visually conspicuous, the risk of misreading a non-stud-locator marking, for example one of many general measurement markings (e.g. ruler-type markings), as a stud locator marking is overall reduced, and substantially eliminated.

Thus, in lumber pieces of the invention, the position of the marking material, and the integrity of the marking material in combination with the piece of lumber, are typically not affected by the level of rough mechanical handling to which lumber is commonly treated at a construction site.

By contrast, in prior art use of marking materials applied to a secondary substrate such as tape, such rough mechanical treatment can be effective to tear off or otherwise remove the secondary substrate, thereby obviating any value in the so-removed marking material.

In addition, the visually conspicuous nature of the stud locator markings greatly reduces the risk of mistakenly identifying/selecting, as a stud locator marking, a mark which is not a stud locator marking.

Similarly by contrast, in prior art use of marking materials applied directly on a lumber substrate, stud locator markings have been mixed with liberal quantities of other markings in such manner that the stud locator markings are not visually distinguished and/or do not mark the edges of the location for stud placement, thus retaining substantial risk that an e.g. general measurement line will be selected as a stud locator marking and/or that the stud will not be properly centered at the proper stud location.

VI. ISSUES (37 CFR §1.192(c)(6))

The only issue in this appeal is whether the rejection of Claims 1-11, 23-30, and 65-77 under 35 U.S.C. §103(a) as being unpatentable over Day (US 5,632,095) in view of Leary (US 2,187,087) is proper.

VII. GROUPING OF CLAIMS (37 CFR §1.192(c)(7))

Claims 1-6 stand or fall together as a single group directed to a bundle of framing lumber product where the stud locator markings are visually conspicuous and where the stud locator markings indicate the positions where the front and back surfaces of the studs are to intersect the lumber piece.

Claims 7-8 stand or fall together as a single group directed to a bundle of framing lumber product where the stud locator markings are visually conspicuous, and where the respective pieces of lumber product are devoid of any location marking indicators away from the stud locator markings.

Claims 9 and 73 stand or fall together as a single group directed to stud locator markings which extend substantially across the full width of the lumber product.

Claims 10-11 stand or fall together as a single group directed to a bundle of framing lumber product where the stud locator markings are visually conspicuous and where the stud locator markings have leading edge lines, trailing edge lines, and first and second crossing lines between the leading and trailing lines.

Claims 23-28 stand or fall together as a single group directed to a lumber product where marking indicators are marked directly on the lumber and where the lumber product is devoid of any marking indicators away from the stud locator markings.

Claims 29-30, 71-72, and 74-75 stand or fall together as a single group directed to a lumber product where the lumber product is devoid of any marking indicators away from the stud locator markings, and where the stud locator markings have leading edge lines, trailing edge lines, and first and second crossing lines between the leading and trailing lines.

Claims 65-70, and 76 stand or fall together as a single group directed to a lumber product where the stud locator markings are visually conspicuous and leading and trailing edges of the markings are separated by distances defined by at least nominal stud thicknesses.

Claim 77 stands or falls alone as directed to a lumber product where a stud can be placed such that neither the leading edge nor the trailing edge of the stud locator marking is completely covered on the respective stud-receiving surface.

VIII. ARGUMENTS (37 CFR §1.192(c)(8))

Claims 1-11, 23-30, and 65-77 stand rejected under 35 U.S.C. §103 (a) as being unpatentable over Day. (US 5,632,095) in view of Leary (US 2,187,087). Applicant traverses.

The Examiner's Stated Basis for Rejection Cannot be Understood

Applicant's first issue is that this case cannot be properly argued on the merits because the examiner has not clearly stated a basis of rejection. Namely the Office Actions dated 10/02/2003 and 3/24/2004 contain grammar defects of such severity that Applicant is unable to discern, with any degree of certainty, the real message which the examiner was attempting to convey. Applicant so stated in Amendment D and Amendment E, submitted 07/08/2003 and 01/02/2004 respectively, and requested clarification. The examiner fully ignored such pleas for clarity, whereby Applicant is left with the task of facing potential clarity of the basis for the rejection for the first time during the Appeal process, but having to present a defense before the basis for rejection is known.

Applicant's best guess regarding the examiner's basis for the rejection is rooted in the sentence of the 03/29/2004 Office Action at page 4, the sentence which extends from line 4 to line 8, both lines being counted from the bottom of the page. The respective sentence reads as follows.

"However, the applicant had misled and misunderstood to the examiner's position, the purpose of making the combination Leary with Day are wider spacing interval, easy to identify by viewer, every two lines marking are corresponding to the lumber thickness, thus a wood product with only stud spacing marking is provided."

However, even this statement, and its purported relevance, are not clear. Applicant submits that being required to respond without clear statement of the basis for the rejection

is without basis in the law. Applicant should not have to speculate as to the general nature of what the examiner is trying to convey. That is why the examiner is required to present a prima facie case. Applicant submits that he is entitled to a clear statement of the rationale behind the rejection, that he is entitled to a statement regarding the nature of the resulting combination to which the examiner is referring, in an obviousness rejection based on two references, as here. Namely, the law states that the examiner has to make his prima facie case. Applicant submits that if the examiner's grammar is so poor that the message cannot be discerned with reasonable clarity, the examiner has, without question, failed to make his prima facie case. As a simple example of the grammar problems, Applicant invites the commissioner to answer 3 simple questions regarding the above quoted sentence.

1. What is the subject?
2. What is the verb?
3. What is the predicate?

Further, if the nature of the structure which is alleged to result from the combination of two references is not clear, Applicant is entitled to a clear expression, whether by words or by sketch, of what the examiner envisions as being the result of making such combination. Further, Applicant is entitled to a statement of what elements have been employed from each reference, and the motivation, either from the references or from the publicly-expressed state of the art, for each selection.

Since the examiner has not met his burden, the examiner's statement of rejection cannot be upheld. On the other hand, Applicant fears that sending the case back to the examiner is not likely to result in a more meaningful examination. Accordingly, Applicant prays the Board to bring finality to at least the definition of the basis of the rejection which is being asserted against the claims at issue. Applicant submits that, once the rejection can be understood, then the case can be brought to closure with reasonable expediency.

In the instance of the subject appeal, Applicant presently has no certainty regarding the resulting combination supposedly being asserted by the examiner whereby no focused response is possible - a situation which has persisted since the examiner initiated the rejection based on the combination of Day and Leary.

Nevertheless, in spite of this lack of clarity in the examiner's rejection, Applicant here presents his response to the examiner to the best of his ability, and further presents a corresponding and expanded response here. In order to formulate such response, Applicant has necessarily made certain assumptions regarding possible combinations which might be asserted, and addresses each one in turn. In that regard, Applicant has identified five combinations. Three of the combinations are illustrated in EXHIBITS A, A2, and A3. The fourth combination is approximately illustrated by Leary. The fifth combination has no known illustration outside applicant's disclosure. While Applicant addresses each of the five combinations which he has been able to identify, Applicant submits that, in any event, he may, at the Appeal level, be facing a currently-unknown combination rejection, whereby no meaningful argument can be formulated, at this time, to such unknown combination.

Accordingly, Applicant respectfully requests that, in the event the examiner does not provide any representation of the combination of Day and Leary which is being used as the basis for the rejection, the Appeal Board kindly provide a clear representation of such combination which forms the basis of any rejection before, or asserted by, the Appeal Board.

The Examiner's Rejection is Wrong Under the Law

Day teaches a framing lumber product which is printed or stamped with an abundance of markings, including (i) measurement marking lines spaced at $\frac{1}{2}$ inch intervals on both sides of a given face of the lumber product, (ii) the stud indicator markings, and (iii) numeric and alpha designations of the significances of the respective marking lines. Thus, Day has turned an ordinary piece of lumber into a giant measuring device which

"eliminates the need for additional tools and implements", referring to "tape measures, rulers, and carpenter's squares" (column 1 line 10) whereby the framing "procedure can be accomplished without having to carry additional tools" (column 3 lines 28-29). Such markings are disposed along the full length of the lumber product. See FIGURES 2 and 3 of Day.

The large number of alpha and numeric indicators identify the significance of each of the marking lines, including "inch indicators 38, half-inch indicators 40, foot/inch indicators 42, foot indicators 36, 16 inch spacer [stud] indicators and 24 inch spacer [stud] indicators 46....foot indicators 36 are shown within an inverted "V" shape, and 16 inch spacer indicators 44 are shown within circles" (column 3 lines 6-11), and tell the user what the various marking lines refer to.

Thus the overall structure of the Day product is such that it carries a lot of measurement information, along with stud locator markings as additional information. However, the stud locator markings are so well integrated with the abundance of measurement marking lines and other indicators that the stud locator markings are not visually conspicuous, whereby the objectives of this invention, of reducing the level of skill needed to lay out top plates and bottom plates is not achieved. In addition, the structure of the stud locator markings is such that the locations of the leading and trailing sides of the studs where they intersect the plates is not defined on the plates. Such lack of position definition on the lumber product further fails to provide the precision and consistency objectives of the invention for assembling frame wall assemblies.

Leary teaches a flexible template such as a roll of tape which is printed with spaced lines which represent repeated spacing of something with which the tape is to be associated. The tape is readily portable, and is versatile in that the tape can be applied to a wide variety of substrates. Such tape is also subject to error, in that the tape is applied to any given substrate by a construction-site worker. Further, such application is subject to many risks associated with construction site application.

In the instance asserted by the examiner, the tape is marked with stud locator markings (FIGURES 1 and 2). The tape is taught as being stuck to the plate lumber piece, and the studs placed over the tape on the plate (FIGURE 2). Leary clearly teaches the studs covering the indicia A' on the tape (column 2 lines 21-22) whereby the markings are not visible in the assembled frame wall. As indicated in Applicant's earlier Appeal Brief and

Reply Brief, addressing the Thomas reference (which also teaches a tape template), the tape is made of a material which is not dimensionally stable, in this case gauze or paper (column 1 line 53).

It Would Not Have Been Obvious to Combine the References

Whatever the nature of the asserted combination structure which the examiner purportedly derives from the references, Applicant submits that it would not have been obvious to combine such references. Even if the references are combined, such combination either would not have been obvious, or any obvious such combination would not, in any event, have arrived at the invention.

While the examiner has asserted obviousness to combine, the examiner has shown no motivation to combine, other than hindsight reconstruction. Neither has the examiner shown any resulting combination, whether in words or sketch, which arrives at the invention. Applicant has requested that the examiner provide such disclosure. The examiner has not responded to this request in any meaningful way. Applicant submits that the reason the examiner has failed to respond to Applicant's request is because the examiner is not able to respond in any meaningful way to such request without admitting that his rejection is untenable. Rather, the examiner has used silence, in combination with the power of his position, to attempt to force Applicant to abandon this valuable invention. Applicant hereby respectfully declines to submit to such forced coercion. This application has already been inappropriately subjected to one Appeal. Now the inventor is forced to go through yet another such unnecessary expense and delay in the grant of this patent.

While the examiner has alluded to some "purposes" for making the Day/Leary combination, such "purposes" are stated in terms of results accomplished, not purpose to be striven for. In any event, the examiner has not clearly taught or suggested the structure of the alleged obvious resulting combination. So Applicant is left to speculate on the nature of the resulting combination product. Only after conjuring up a such combination product, can Applicant address the question of whether such combination might have been obvious to the person of ordinary skill in the art.

In searching for the elusive combination, Applicant assumes that the examiner either combines some structure of Leary into some structure of Day, or combines some structure of Day into some structure of Leary. However, in making such combinations, one must

guard against being too creative, lest he/she go beyond the appropriate meaning of "obvious" in combining the references, and thereby defeat or otherwise nullify the basic premise, or stated advantage, set forth in the respective reference.

Indeed, with hindsight creativity, one can often come up with combinations of references, which combinations would not have been obvious absent applicant's teaching as part of the foundation from which such combination is devised.

All of that said, Applicant initially limits his hypothetical "combinations" to combinations which can be obtained by single steps of combining structure of one of the references into structure of the other reference. Finally, Applicant assesses a multiple-step combination which Applicant believes may be the examiner's intended combination.

Applicant has been able to identify four possible single-step combinations, plus one multiple-step combination, and comments on each of the respective five combinations as follows. Applicant notes that none of the following combinations actually exist in the prior art, whereby the "obvious to combine" or "obvious to modify" opportunity offered by 35 U.S.C. 103 has already been "used up" in the process of making the structures being addressed. Accordingly, the appropriate query regarding a such combination is whether the resulting combination has "arrived at" the claimed invention. By contrast, a query such as *"does this combination make the invention obvious"* is inappropriate, because the obvious query has already been employed in making the subject combination.

Stated another way, one can make an obvious combination, and then ask whether the invention has been achieved. However, one is not entitled to make an obvious combination and then ask whether such "obvious combination" makes the "invention obvious", as such query would really be asking whether the invention was obvious in light of an obvious, but in fact non-existent structure. All of that said, Applicant presents the following four single-step combinations.

The first combination. In this combination, the marking array on the main surface of Day is added to the markings on the tape of Leary. The result is a tape which has all of the markings of Leary, plus all of the main surface markings of Day. This combination, of course, does not produce a lumber product as claimed, which bears markings directly on the lumber material. Rather, this combination produces only a printed tape. Accordingly, this first combination does not represent the claimed invention and is rejected out of hand as being defective as a basis for defeating the claims at issue.

The second combination is shown in EXHIBIT A. In EXHIBIT A, the spaced stud locator markings indicated on Leary's tape have been added, as spaced ink markings directly on the lumber of Day, in place of the closely-spaced parallel lines 44 and 46 which are used by Day as stud location markings. Thus, the combination of EXHIBIT A replaces the stud locator markings of Day with the stud locator markings of Leary, and places the Leary stud locator markings directly on the lumber. As such, the locations of the Leary markings are employed in combination with the direct-ink-on-wood practice of Day, while deleting the now-duplicative stud locator markings of Day, and otherwise maintaining the appearance and structure of Day.

Referring to EXHIBIT A, it is clear that, in this "combination" structure, it is more difficult to distinguish the stud locator markings than in the original Day structure. Referring especially to FIGURE 2 of EXHIBIT A, unless someone explains where the stud locator markings are, the user will not readily identify the stud locator markings. Even knowing the concept of the location and appearances of the stud locator markings, at least from the top of the lumber product (FIGURE 2), the locations of the studs are not readily discerned. In the resulting product illustrated in EXHIBIT A, the stud locator markings certainly are not visually conspicuous (Applicant's independent Claims 1 and 65). Nor is the lumber product devoid of any marking indicators away from the stud locator markings (Applicant's independent Claim 23). Finally, as noted following, the markings are not separated by a distance generally defined by at least a standard nominal stud thickness.

In light of the above, this second combination, illustrated in EXHIBIT A, does not arrive at the claimed invention.

The third combination. In EXHIBIT A2, the stud locator markings indicated on Leary's tape have been added, as spaced ink markings directly on the lumber of Day. The closely-spaced parallel lines which are used by Day to indicate a stud location have been preserved unchanged. Thus, the combination of EXHIBIT A2 adds the stud locator markings of Leary to the stud locator markings of Day, and places the Leary stud locator

markings directly on the lumber. As such, the locations of Leary are employed in combination with the direct-ink-on-wood practice of Day, while preserving the stud locator markings of Day.

Referring to EXHIBIT A2, it is clear that this "combination" structure adds to the clutter already present in Day, which makes it even more difficult to attribute value, or motivation for combining the locator markings of Leary into the original Day structure. Referring especially to FIGURE 2 of EXHIBIT A2, the added markings of Leary add nothing in the way of clarity/conspicuousness of the stud locator markings, to the array of markings in Day. In the resulting product illustrated in EXHIBIT A2, the stud locator markings certainly are not visually conspicuous (Applicant's independent Claims 1 and 65). Nor is the lumber product devoid of any marking indicators away from the stud locator markings (Applicant's independent Claim 23). Finally, the markings are not separated by a distance generally defined by at least a standard nominal stud thickness.

In light of the above, this third combination, illustrated in EXHIBIT A2, does not arrive at the claimed invention.

The fourth combination. In EXHIBIT A3, the tape of Leary, with its spaced stud locator markings, is affixed to the surface of the already-printed lumber of Day, thus covering the Day markings on one side of the piece of lumber.

Referring to EXHIBIT A3, it is clear that this "combination" structure leaves the Leary tape on the lumber product of Day, thus violating a basic tenet of Applicant's invention which is the placement of the stud locator markings directly on the lumber product, thereby enabling the studs to interface directly with the surface of the lumber product (e.g. top plate or bottom plate). Referring to EXHIBIT A3, the covering of the markings of Day with the tape of Leary defeats half of the functionality of the Day structure. Clearly, it would not be obvious to make such combination. Nevertheless, Applicant directs attention to whether the combination of EXHIBIT A3 represents the claimed invention. Applicant submits that, in the resultant product illustrated in EXHIBIT A3, the stud locator markings are not placed

on the surface of the lumber product at surfaces which assist in defining dimensions of the lumber product (all claims). Nor is the lumber product devoid of any marking indicators away from the stud locator markings (Applicant's independent Claim 23).

In light of the above, this fourth combination, illustrated in EXHIBIT A3, does not arrive at the claimed invention.

The fifth combination. Consider Leary and Day in combination. Do Day and Leary together stimulate the "obvious" conclusion that printing on wood is better than Printing on tape; that making the stud locator markings more visually conspicuous than other markings which may be on the lumber product is better than having the measurement indicators more visually conspicuous, or equally visually conspicuous? After all, Day is all about measuring. So shouldn't the measuring markers be more conspicuous than the stud locator markings?

The examiner cites "purposes" for making the combination, but cites no basis in the art for such purposes. There is no stated basis in the art, no energy, no driving force urging one to combine Day and Leary in any way - only in hindsight reconstruction. Indeed, the examiner ignores the important fact that there are two references (Leary and Thomas) which teach stud locator markings on tape, and only one reference (Day) which shows stud locator markings printed directly on the wood.

The examiner further ignores the fact that both of the references which focus on stud locator markings teach use of tape; while the one reference which applies the stud locator markings directly on wood, applies such markings in combination with a substantial number of types of measurement marking indicators thereby to turn the lumber piece into a proxy for a generic measuring device where the industry practice is to print on the wood. Of course one would print measuring indicators directly on wood. That is common practice. Adding the stud locator markings is no more than a secondary benefit. And since the stud markings are included in such ink-on-wood product, the stud locator markings are,

of course, printed the same way. But the question at hand is whether such ink-on-wood practice would have been obvious absent the measuring marks. Applicant submits not.

That said, Applicant contemplates at least three possible paths to achieving the above combination, all of which violate the basic objectives of Leary (tape intended to be retained in the structure when completed, column 1 lines 13-14); and two of which violate the basic objectives of Day (measurement lines enable worker to not carry other measurement devices). While the result may seem simple, the step-by-step analysis is anything but simple, and shows the pit-falls of assuming results without fully considering, in their entirety, the teachings of the references.

And, by the way, let us not forget the remaining references in the art, such as 4,845,858 Thomas which, as recently as 1989, teaches the benefits of tape substrate.

In analyzing this fifth combination, Applicant contemplates at least the following three paths (a), (b), and (c) by which one might arrive at some of the asserted combinations of Applicant's claimed invention.

- (a) 3 Steps - Substitute Leary into Day. Namely, delete the pattern of Day (violates basic objective of Day), leaving only the wood substrate. Delete the tape from Leary (violates basic objective of Leary), leaving only the Leary pattern. Apply the pattern of Leary to the substrate of Day.
- (b) 3 Steps - Modify Leary and add an element of Day. Delete the tape substrate of Leary (violates basic objective of Leary), leaving the pattern of Leary. Select the print-on-wood concept of Day as being more desirable than the print-on-tape concept of Leary. Apply the pattern of Leary to the print-on-wood concept of Day.
- (c) 3-Steps - Substitute Leary into Day. Namely, delete the pattern of Day (violates basic objective of Day). Apply the pattern but not the tape of Leary to the

substrate of Day (separating Leary tape from the print pattern violates a basic objective of Leary).

Detailed Analysis

Turning now to a more detailed examination of the issues, the first combination is dismissed out of hand without further ado.

Applicant turns next to the fourth combination, illustrated in EXHIBIT A3. As a point of entry into the analysis, Applicant points out that the fourth combination results in imposition of tape between the marked lumber piece and the end of the stud which is to be assembled to the marked piece of lumber. Thus, the fourth combination is faithful to the Leary objectives, but is unfaithful to the Day objectives, and does not arrive at the claimed invention. Such imposition of tape is subject to the several dysfunctional defects related to slipping, moving, and breaking of the tape.

Disadvantages of tape, first expressed by Applicant, are as follows.

1. *Tape will interfere with direct surface-to-surface contact* between the end of a stud and a side surface of the respective plate. Interference between the stud and the plate occurs any time the tape is located in a position between the stud and the plate. Interference can take any of a number of forms. In this case, probably the most relevant form of interference is that the adhesive on the tape can act as a lubricant between the stud and the plate, facilitating undesired movement of the stud with respect to the plate while the plate/stud assembly is being fabricated; and before the studs are secured in place with suitable fasteners.

2. *Lumber can be wet, oily, dusty, which can interfere with good adhesion between marking tapes and studs.* Even if the tape is adhered to the lumber, strength of such adherence can be so small as to be easily defeated by forces normally imposed during wall frame assembly.

3. *Marking tapes can move ahead of the stud as the stud is being installed.* Friction between the end of the stud and the side of the plate stretches that portion of the tape which is behind the movement of the end of the stud, and pushes on that portion of the tape which is ahead of the movement of the end of the stud.

Where the side-ways stretching force being exerted on the tape is sufficiently great that the stud does not slide with respect to the tape, either the tape will break, or the

adhesion will be released from one of the tape substrate or the plate, or cohesion within the adhesive may fail. Either way, the tape accordingly becomes useless for determining stud location on that portion of the tape. Where the tape is being pushed ahead of the end of the stud, such movement of the tape with respect to the plate makes the tape useless for the intended purpose of determining stud location on that portion the tape so affected.

In any event, the resulting combination of Day and Leary does not arrive at the claimed invention -stud locator markings directly on the lumber product (all claims), visually conspicuous stud locator markings on the lumber (Applicant's independent Claims 1 and 65) or devoid of any marking indicators away from the stud locator markings (Applicant's independent Claim 23).

In addition, placing the tape of Leary over the printed measurement markings of Day covers, obliterates, makes useless, defeats the purpose of, approximately half of the markings on the Day product. Thus, this combination works violence on the measuring features intended to be incorporated into the Day product. Day states at column 3 lines 36-39 that the accuracy of measurement, cutting and framing "are critical in any framing project...." But the combination of A3 defeats the advantage being sought after by Day.

In light of the above, Applicant submits that patentability cannot be defeated under 35 U.S.C. §103 because it would not have been obvious to combine Leary and Day as in the fourth combination and thereby negate half of the markings of Day in order to incorporate the teaching of Leary as in the embodiment of EXHIBIT A3. It is well established in the law that one cannot, as here, do violence on a reference in the process of incorporating that reference into a combination for the purpose of defeating a claim directed to the combination. Further, obviousness is not found where the resulting combination is dysfunctional, such as having the dysfunction problems related to a tape which can slip, move, and/or break. still further, obviousness is not found where, as here, the resulting combination is not embodied within the scope of the claims.

Since it would not have been obvious to combine Leary and Day in the manner of the fourth combination, and since the fourth combination is not embodied within the scope of any of the claims, the fourth combination can be dismissed as not hindering patentability of any of Applicant's claims.

Applicant turns next to the combination of EXHIBIT A, the second combination, and starts with consideration of the effect of the combination of the second combination on Claim 1. Claim 1 recites the markings indicating the positions where the front and back surfaces of respective lumber pieces are to intersect the respective said elongate piece of lumber as being visually conspicuous so as to quickly catch the viewer's eye. This language is taken from page 14 line 7 of Applicant's specification, with only the specific recitation "visually conspicuous" being added by amendment. The statement "*to quickly catch the viewer's eye*" was in the specification as originally filed. Accordingly, adding the phrase *visually conspicuous* is no more than a restatement of *quickly catch the viewer's eye*.

In arriving at any conclusion regarding patentability, one must keep in mind the objective of the inventor's inquiry. Only by putting ourselves in the inventor's place, by asking the proper question of "what would a person of ordinary skill in the art do(?)", can one arrive at a proper conclusion regarding whether the references would have made the invention obvious. Applicant's specification states the objects of the invention at pages 5-6. Referring to page 5 at lines 14-18, one of the objects is *to provide products wherein the stud locator markings...enable unskilled workers to recognize the desired spacings and lay out the studs....* Leary, too, recognizes that stud layout is ordinarily done by skilled workmen, and desires that such layout be done "by ordinary workmen" (col. 1 lines 20-26).

Day, by contrast, focuses on "*measuring and cutting*" so as to achieve a proper assembly (col. 1 lines 50-59). Day essentially provides ruler markings on every piece of lumber, and thereby "*eliminates the need for additional tools and implements, saves time*

and improves accuracy in measuring for framing purposes, where exact measurements are critical to the framing of the structure...."

In light of the above problem facing the inventor, one asks whether the second combination arrives at the claimed invention, including satisfying the stated objectives. As critical to answering that question, one must ask whether, in the layout of the second combination, as illustrated in "EXHIBIT A", the leading and trailing edge stud locator markings are visually conspicuous so as to quickly catch the viewer's eye. Applicant submits that there is nothing in the "EXHIBIT A" illustration whereby the leading and trailing edge stud locator markings, namely the added (Leary) markings, are visually conspicuous so as to quickly catch the viewer's eye. And there is nothing in either Day or Leary which would lead the artisan to make such markings visually conspicuous, especially in light of the fact that the objectives of Day are focused on measurings.

In arriving at the above conclusion, Applicant observes that the markings in the second combination as illustrated in "EXHIBIT A" represent visual overload, visual clutter, to an unskilled workman. Potentially a skilled and experienced workman, with significant effort, may reliably perceive the correct locations for the studs. But that is not the objective. The objective here is make the stud locations readily perceived by an unskilled worker. So let's take the proverbial unskilled "kid off the street" who is hired as a construction worker. Let's have that worker position the studs on top plates and/or bottom plates of the "EXHIBIT A" configuration. Will he repeatedly locate the studs with reasonable reliability? Applicant submits he will not.

Consider the stud locator markings indicated at 34 in Fig. 3 of the "EXHIBIT A" combination. That piece of lumber has markings at $\frac{1}{2}$ inch spacings, including through the space where the stud is to be located. Since a conventional "stud" is 1.5 inches thick, the "EXHIBIT A" combination has added markings at $\frac{1}{4}$ inch spacing between ones of those $\frac{1}{2}$ inch markings, $\frac{3}{4}$ inch away from the "34" indication on the lumber piece. Given that positioning of the leading and trailing edge of the stud markings, and given the thickness of

conventional studs at 1.5 inches, the leading surface of a stud can be placed at any of the markings in the vicinity of "34", and the worker will see a marking adjacent the trailing surface of the stud. Similarly, the trailing surface of the stud can be placed at any of the markings in the vicinity of "34" and the worker will see a marking adjacent the leading surface of the stud. Applicant submits that there is nothing "visually conspicuous" about the second combination layout (EXHIBIT A) which would "quickly catch the viewer's eye" as recited in Claim 1.

In light of the above, Applicant submits that the second combination does not achieve the "visually conspicuous" nature of the markings claimed in Claim 1, whereby Claim 1 is patentable over the "EXHIBIT A" combination.

Applicant next turns to the third combination as illustrated in EXHIBIT A2 and asks whether the third combination provides the required "visually conspicuous" markings of Claim 1. Applicant submits that the same analysis as is used above with respect to the second combination applies equally as well to the third combination of "EXHIBIT A2", whereby Claim 1 is patentable over the third combination.

With respect to Claims 7-8 and 71-73, the examiner made no comment regarding any basis for rejection, whereby the examiner has failed to make any case with respect to Claims 7-8.

With respect to Claims 9 and 73 the examiner made no comment regarding any basis for rejection, whereby the examiner has failed to make any case with respect to Claim 9 or Claim 73.

With respect to some unstated ones of the claims, the examiner stated that he took Official Notice of the *"functional equivalence of the leading, trailing edge lines being clearly enough for positioning the studs and the marking indicators devoid way when the studs*

being positioned". Frankly, Applicant has no idea what the above sentence says and so offers no rebuttal.

While the examiner may consider the leading and trailing edges as being **clearly enough**, the law does not empower the examiner to simply impose his own judgment where he presents no other basis for his decision. In addition, the examiner's stated basis of **clearly enough** has no clear meaning, and in any event has no significance in the law, whereby his conclusion, while interesting on its face, has no probative value with respect to resolving the question of patentability of the claimed invention.

Claims 7-9 recite framing lumber product **"substantially devoid of any marking indicators away from the stud locator markings."** Neither the second combination of "EXHIBIT A" nor the third combination of "EXHIBIT A2" teach a product "substantially devoid of any location marking indicators away from the stud locator markings" as claimed in Claims 7-9. For instance, Day discloses a "lumber product . . . [having] marking lines spaced at ½" intervals . . . " (Day Column 1 Lines 50-51, Col. 4 Line 4). Indeed, Day does not teach *any* embodiment devoid of such markings, as well as 1 inch intervals, and foot intervals. Neither do any of the combination structures of EXHIBITS "A", "A2", or "A3" teach an array devoid of such markings.

For example, under the teachings of Day, an eight foot framing stud could be expected to have approximately 192 lines per edge, on the "face" of the stud. Further, Day teaches marking lines adjacent *both* edges of the face; the two rows "are separated down the middle longitudinally by an unmarked section" (Day Column 2, Lines 4-5). Thus, Day teaches a lumber product with as many as 192 lines in each of 2 rows "per face," or 384 total lines. Obviously, 384 lines on a piece of lumber *cannot* be considered "substantially devoid of any marking indicators away from the stud locator markings."

Consider how different the Day product, and Applicant's invention, would appear in an **actual** wall framing assembly. First, consider how Day's product would appear on the bottom plate of a "framed up" wall. Some of the "stud marking lines," and "other marking lines" would not be visible, as they would be directly covered by studs. So, if standard dimension 2x4 studs were used, approximately 1.5" of markings/lines would be covered

per stud placement. However, the remainder of the bottom plate would show a vast number of "visible marking lines and corresponding numerals." And, of course, the presence of so many marking lines, some as close as ¼ inch away from the lines to be used, present plenty of risk for making a mistake by aligning a stud with the wrong marking indicator line. In any event, Day does NOT teach or suggest a product substantially devoid of any marking indicators away from the stud locator markings. A substantial consequence of such visual clutter on the Day lumber, or the second "EXHIBIT A" combination or the third "EXHIBIT A2" combination, is the potential for mistake in assembling a stud to such piece of lumber.

While, in hindsight, the clarity value of Applicant's claimed invention can readily be seen, such is not made obvious by any combination of the references. Rather, the structures which can be made by combining the references are visually cluttered, cause visual overload, which is a prescription for error on the construction site. The claimed invention, on the other hand, does not suffer from such proclivity to error, but makes the layout quite simple and straight forward since the stud marking indicators are, at minimum, visually conspicuous.

In fairness to the examiner, the examiner tried to respond to Applicant's arguments, at pages 4 and 4-5 of the 10/2/2003 and 3/29/2004 Office Actions, respectively. Unfortunately, the examiner's grammar there is so poor that Applicant is unable to discern the message the examiner is attempting to convey. Nonetheless, Applicant responds here as Applicant best understands the examiner's message, especially with respect to the leading and trailing markings. The examiner states that the studs will "devoid the markings". Applicant assumes the examiner means that the studs will cover the markings. In the Day and Leary references - yes. In Applicant's invention, as to some of the claims, e.g. Claims 65 and 77, and as taught in Applicant's specification - no.

Nothing in Applicant's teaching suggests that a properly-placed stud covers the marking so as to make the marking invisible (devoid the marking). Rather, a preferable, though not required, spacing of the leading and trailing markings from each other is such placement where the markings are visible immediately adjacent the stud surfaces when the

stud is properly positioned, as suggested in the specification at page 14 lines 3-4, and as claimed permissively in Claim 65, and expressly in Claim 77.

By contrast, the stud locator markings of Day, on the face of the lumber which is covered by the stud, are always covered by any stud which is properly positioned. Likewise, Leary recites the "studdings D which are to be erected upon sill C directly over the tape A covering the indicia A'". So Leary's stud locator markings are covered, too, when a stud is properly positioned on the plate. Accordingly, neither reference, whether taken alone or in combination, recites the stud locator markings being visible on the face of the lumber product when a stud is in place on the lumber product. In both cases, the markings are clearly covered. Thus, those of Applicant's claims which address the markings being visible when a stud is assembled to the plate are without question allowable over the applied references, whether taken alone or in combination.

What Claims 7-9 state, as well as independent Claim 23, is that the lumber piece is devoid of any location marking indicators away from the stud locator markings. In that regard, Applicant distinguishes between a stud locator marking, which indicates location for a stud, and (generic) marking indicators such as the various measurement marking indicators shown on Day, e.g. the ½ inch marking indicators, the 1 inch marking indicators, the foot marking indicators, and the like.

Since no reference, no obvious combination of references, teaches or suggests a lumber piece marked with stud locator markings, which is also devoid of marking indicators away from the stud locator markings, Claims 7-9, and 23, and all claims dependent therefrom, are patentable over the references of record.

Claims 10-11 stand rejected as obvious under 35 U.S.C. § 103(a) with reference to Day and Leary. Claims 10-11 stand on their own merits, in addition to the patentability provided through Claim 1.

Claims 10-11 teach stud locator markings having crossing lines between the leading and trailing edge lines, and crossing lines extending from one leading edge to the corresponding trailing edge, respectively. The Day reference does not teach or suggest

such. A product covered by the Day reference is intended to be a "measuring tool" in addition to being a building material. By contrast, the point of Applicant's invention is to provide lumber products, which are simple, accurate, cost effective, and require a relatively lower level of attention to detail for accurate use. Indeed in the clutter of the Day configuration, the crossing lines of Claims 10-11 could, if used, be features which make the stud locator markings "visually conspicuous", the feature which is missing from the illustrations of EXHIBITS "A" and "A2". Such feature is, of course, missing from the illustrations because the references do not teach or suggest crossing lines. In view of the foregoing, Applicant submits that Claims 10-11 are allowable.

Claims 27-28 stand rejected as unpatentable over Day in view of Leary. Claim 27, and also Claim 5, teaches precision for the placement of stud locator markings. Specifically, Claims 5 and 27 teach "variations in spacing between said stud locator markings . . . consistently no more than 0.13 inch leading edge to leading edge." The examiner stated that to "*adjust the spacing variation between the stud locator markings of the studs being consistently no more than 0.13" are considered as obvious design choice based on desired use*". Applicant interprets such statement to mean that the examiner cannot find any reference which supports his position and accordingly imposes his desired hindsight judgment. Such conduct is blatantly contrary to the law, and cannot stand.

Indeed, those skilled in lumber construction trades know that precision is not a core value in lumber-based construction, especially not precision at the construction site where unskilled labor is commonly used in framing a building. So the examiner's statement of "*choice based on desired use*" indeed dictates against finding Applicant's recited precision in the art because such precision is inconsistent with practice in the art. Accordingly, the rejection of Claims 5 and 27 is without basis, and cannot stand. To the contrary, Claims 5 and 27 are allowable over the references on their own merits.

Claim 65 recites the stud locator "markings comprising a leading edge and a trailing edge, said leading edge and said trailing edge, on a given said stud locator marking, being separated by a distance generally defined by at least a standard nominal stud thickness. . . the stud locator markings being visually conspicuous so as to quickly catch the viewer's eye."

As in the analysis of Claim 1, neither Day nor Leary alone teach or suggest markings directly on the lumber piece where a stud locator marking is visually conspicuous.

Neither does either Day or Leary teach the leading and trailing edges being separated by at least a standard nominal stud thickness. The widths of the lines in Applicant's claims are in addition to the separation distances. The line widths, then, become the minimum "extra" widths by which an imperfect stud must exceed nominal stud width before both stud marking indicator lines are covered by the stud. Accordingly, the "EXHIBIT A3" combination is not an obvious combination and so can be dismissed without further ado.

The "EXHIBIT A" and "EXHIBIT A2" combinations do not achieve the visually conspicuous feature. Day teaches a "measuring scale" type device, and teaches measuring and physically marking stud locations; and thus "enable[s] the carpenter to see quickly and easily the measurements to be marked." Thus, under the Day reference alone, any placement markings, which correspond to nominal stud thickness must be manually measured and marked anyway before studs are placed!

Thus, Day operates contrary to Applicant's objectives. While the "EXHIBIT A" and "EXHIBIT A2" combinations provide stud locator markings, the plethora of other markings makes these stud indicators difficult to see, and subject to error when studs are emplaced. Clearly, the stud locator markings of "EXHIBIT A" and "EXHIBIT A2" are not visually conspicuous as required by Claim 65. Accordingly, Applicant submits that Claim 65 is allowable over all references of record. Withdrawal of the rejection of Claim 65 is respectfully requested.

Claim 77 recites that neither the leading edge nor the trailing edge of the stud locator marking is completely covered when a standard dimension stud is properly positioned on the marked piece of lumber. Applicant submits that no reference of record teaches or suggests this feature. To the contrary, in Day, it is clear that the stud locator markings, on the surface which receives the stud, are fully covered up. Further, Leary states at column 2 lines 21-22 that the indicia A' is covered. Accordingly, the recitation of Claim 77, that neither of said leading edge and said trailing edge is completely covered is allowable over the references of record.

As a general comment, besides production costs compared to the Day reference, Applicant's invention offers other cost savings. Applicant's invention provides numerous labor cost saving advantages, which are not available in the Day or Leary products. To fully appreciate the advantages of Applicant's invention, consider first how a product described in Day is used.

To use a product of Day, or a Day/Leary combination of EXHIBIT "A" or "A2", one must be fairly skilled. First, the user locates the appropriate "stud locator markings," which correspond to where the center of a stud should be placed. Second, the user searches for the leading and trailing marker lines. Third, the user positions the surfaces of the studs at the correct stud locator markings, rejecting the adjacent, and similar-appearing markings which are only $\frac{1}{4}$ inch away. Note the similarity between the stud locator markings leading and trailing edges, and the evenly-spaced $\frac{1}{2}$ inch markings in EXHIBITS "A" and "A2". One could easily, in error, misplace the stud surfaces adjacent one of the $\frac{1}{2}$ inch markings and visually see a line at both the leading and trailing surface of the stud, whereby the resulting incorrect placement could look correct to casual observation. While close attention to detail will avoid such error, it is exactly this requirement for close attention to detail which the invention seeks to avoid.

Clearly, substantial attention to detail, and substantial skill, are required to use the Day/Leary combinations of EXHIBITS "A" and "A2".

In addition, the Day reference would not be effective for its intended purpose if it were devoid of marking indicators away from any "stud locator markings," as in e.g. Claims 7, 8, 23, etc. Day teaches an invention "concern[ing] a lumber product, adapted for use in the **measuring, cutting and assembling** . . . of a house or other structure" (Day Col 1, Lines 35-37 (emphasis added)). If a product purportedly of Day were devoid of additional marking lines, it would cease to be an effective tool for measuring, or determining where to make cuts, and indeed would cease to meet the objectives stated in Day, and would therefore be outside the teaching of Day, indeed destroy the invention of Day.

Finally, Applicant addresses further the fifth combination of Day and Leary, which Applicant suspects the examiner may have been attempting to convey in the Office Action dated 03/29/2004, at page 4 last full paragraph. The examiner stated there

"the purposes of making the combination Leary with Day are for wider spacing interval, easy to identify by viewer, every two lines marking are corresponding to the lumber thickness, thus a wood product with only stud spacing marking is provided."

Applicant finds it curious that the examiner's stated purposes follow Applicant's objectives, but not the objectives of the references. Yet the examiner cites no basis in the art for deviating from the purposes/objectives of the references and adopting Applicant's objectives. Applicant submits there is no such basis in the art. Day's objectives are to facilitate measuring, while requiring additional **measurements to be marked** (column 1 line 59). Leary's objective (column 1 lines 8-9) is to provide a secondary substrate (tape) for applying stud locator markings to a primary substrate such as any conventional piece of lumber.

As best understood by Applicant, the resulting structure here suggested by the examiner is a lumber piece which is printed with only stud locator markings of spaced nature as indicated on the tape of Leary.

Clearly the combination requires a piece of lumber. The piece of lumber can be obtained from either Day or Leary. The combination also needs a print pattern. The print pattern can be selected from that of Day or Leary, or some combination of Day and Leary.

Nothing in the reference makes it obvious to select the pattern of Leary. Why not the print pattern of Day? Day says he provides measurement features which avoid the need to carry tools. Leary says he provides a tape product, and pattern, which can be applied to a wide variety of lumber products. So what in the references leads one of average skill in the art to Applicant's selected combination?

Applicant submits that nothing points one to select the pattern of Leary over the pattern of Day. One can as well select the pattern of Day, optionally add the pattern of Leary, and not do violence to the objectives of either Day or Leary. However, the contrary is not true. One cannot select only the pattern of Leary without doing violence to the objectives of Day.

A review of the step-by-step analysis (a), (b), (c) of the apparently asserted fifth combination, and how one changes Day and Leary to arrive at the fifth combination, shows the defects in the examiner's arguments.

- (a) The (a) combination deletes the pattern of Day, deletes the tape of Leary, and applies the pattern of Leary to the now blank substrate of Day. Deleting the pattern of Day destroys the heart, the teaching, the objectives, of Day's invention which is to provide a measuring device in a piece of lumber. Deleting the tape of Leary destroys the heart, the teaching, the objectives of the Leary invention, which is to provide, as a flexible template, a printed tape (column 1 lines 8-10), namely a substrate which can be applied to any piece of lumber.

Applicant submits that the claimed invention cannot be shown to be obvious where one or more primary objectives of one or more references is nullified in the process.

- (b) The (b) combination deletes the tape of Leary, leaving only the pattern of Leary. The pattern of Leary is then applied directly to a wood substrate. Deleting the tape of Leary destroys the heart, the teaching, the objectives, of Leary's invention. Note that Leary is not limited to applying tape to wood. Indeed, the invention of Leary is not embodied in any way in a piece of lumber, except as one example of an object with which the invention can be employed. Leary also applies tape to steel railroad rails (page 2 line 25). **Leary's invention is the tape.** Indeed, the only thing **Leary claims** is **the tape.** **Delete Leary's tape, and there is no invention** in Leary!!

Applicant submits that the claimed invention cannot be shown to be obvious where one or more primary objectives of a reference are nullified in the process.

- (c) The (c) combination deletes the pattern of Day and applies the pattern, but not the tape, of Leary to the remaining blank substrate of Day. Here again, deleting the pattern of Day does violence to the teaching of Day. Deleting the tape of Leary does violence to the teaching of Leary. Also again, the invention cannot be shown to be obvious where one or more primary objectives of one or more references are nullified in the process.

Applicant submits that there is nothing in either reference which, for purposes of marking stud locations, suggests that direct printing of ink is superior to tape. Rather, two references clearly teach tape as being the preferred medium. And Tomas is sufficiently recent that the technical capability for direct printing, e.g. in 1987, was certainly available.

The only place stud locator markings are applied directly on a lumber product is in a laundry list of markings which otherwise reflect a measuring tool, yardstick, ruler, carpenter's square, or the like, in all of which markings are traditionally printed directly on the underlying structural substrate.

On the other hand, in all instances where the focus was on stud locator markings, tape was taught as the substrate/medium of choice.

Thus, the art leads to rolls of tape as the obvious substrate for stud locator markings. Yet, the examiner searches out a single reference, which happens to include stud locator markings as part of a laundry list of printed measuring markings, and stubbornly holds onto that reference as controlling the patentability decision, in the face of contrary superior teaching in other references which focus on stud locator markings, as does the claimed invention.

The fact that the examiner has not asserted a novelty rejection acknowledges novelty in Applicant's claimed invention. The fact that any iteration of this fifth combination works violence on the purposes and objectives of at least one of the references establishes the required non-obviousness to satisfy 35 U.S.C. §103, in spite of the fact that the examiner has never carried his burden of showing a prima facie case of obviousness.

In light of the above analysis, we cannot simply combine most or all of Day into Leary and get the invention. Neither can we combine most or all of Leary into Day and get the invention. Rather, the only way we can get the invention, is take only a small bit of Day as known only by hindsight reconstruction (namely the concept of printing directly on the piece of lumber), ignore/discard the core measuring concepts of Day, ignore/discard the fact that Day teaches to combine stud locator markings with measuring markers. We then apply that teaching to Leary, ignore/discard the core concept that Leary wants his markings to be readily portable, to be applied to any desired substrate, ignore/discard the fact that we are doing violence to the core teachings of Leary.

The fact that the examiner is ignoring, discarding fundamental core concepts in both references, in order to make a construct which purportedly arrives at the claimed invention, is highly indicative that the examiner's construct is in fact hindsight reconstruction.

Addressed another way, outside Applicant's disclosure of the invention, the examiner has not shown any source for the objectives, printed directly on the lumber, of

"wider spacing interval, easy to identify by viewer, every two lines marking are corresponding to the lumber thickness".

Leary wants markings printed on a roll of tape, as does Thomas, of record. Day wants to use pieces of dimension lumber as measuring devices as well as elements of the framing structure.

Applicant submits that the only place the examiner can find Applicant's claimed features, including the visually conspicuous markings on a piece of lumber, the bundles of

marked lumber, the lumber which shows front and back edges of the stud locations, which optionally leaves the markings visible in the assembled framed wall, is by looking to Applicant's teaching. That qualifies as hindsight reconstruction, looking at both the objective/problem and the resulting inventive solution. But such is proscribed in the law.

No Reference Teaches or Suggests a Bundle of Marked Lumber

In addition to the above, there is the matter of Applicant's Claim 1, element (c), the at least one strap on the claimed "bundle" of framing lumber product.

Claim 1 is directed not only to markings placed directly on a piece of lumber, but is further directed to such piece of lumber in a bundle of lumber. FIGURE 5 illustrates such bundle, held together by straps 28, one of which is shown in FIGURE 5. The Day reference discusses the markings being on the piece of lumber. Within the context of the teaching of Day, there is no suggestion of when the markings are applied to the lumber. Nothing in Day or Leary suggests any strapping of a bundle of lumber.

In the 03/29/2004 Office Action, which is instructive, the examiner states at page 3 lines 11-12 that he

"takes official Notice the fact that lumber come in bundles wrapping with straps are well known in the lumber art. The motivation for doing so would have been to provide more securement for transportation".

Ignoring the examiner's lack of clarity in the grammar; assuming Applicant got the "gist" of the examiner's point; in no way conceding anything because the examiner's statement lacks clarity; Applicant acknowledges that lumber is known to be shipped from the finishing mill to the lumber yard in strapped bundles. Applicant further submits that neither Day nor Leary suggest that the printed lumber of e.g. Day is printed in a finishing mill. Day doesn't say where, or how, his lumber is printed. Given conventional printing technology when Day was invented, the lumber could have been printed either at the finishing mill or at the lumber yard.

Whether or not the lumber was printed at the finishing mill, it would likely be bundled for shipping from the finishing mill. If it were not printed at the finishing mill, such bundling would not be a bundle of the lumber product as in Claim 1. Such lumber product would, rather, be outside the scope of Claim 1.

Certainly, if the lumber is printed at a lumber finishing mill, one would expect that the printed lumber would be strapped, as is conventional lumber. But if the lumber is printed at the lumber yard, e.g. the yard where a retail customer goes to purchase lumber, then the lumber well may not be strapped after being printed, whereby the marked lumber is not bundled.

Such lumber would be printed, as needed, at the lumber yard if and as ordered by customers of the lumber yard. For example, only e.g. up to about 5-15% of the lumber in a typical framing order is used for top and bottom plates, whereby only 5-15% of the lumber in a typical such order need be so printed. A completely separate inventory of such printed stock would be quite expensive given the relatively lower sales volume. Yet many sizes of printed lumber would have to be stocked in inventory.

On the other hand, there would be no such inventory problem if the printing is done at the lumber yard, using otherwise conventional stock, as customers place orders.

So if we knew where the lumber of Day was printed, we might have an answer regarding whether at least the printed Day product was bundled. But Day does not give any indication of where the lumber is printed.

In the case of printing in the lumber yard, the bundle of conventional, unprinted lumber, as shipped from the finishing mill, is opened at the lumber yard, and the strapping material removed. The yard operator then takes the requisite number of pieces of lumber from the bundle, prints them, combines the printed pieces with the requisite number of pieces of unprinted lumber in the order, and ships the order.

Given the availability of a wide variety of printers, the marking certainly could be done at the lumber yard when an order is received. That would minimize the need to separately stock a wide variety of sizes of pre-printed lumber, in addition to the unprinted conventional lumber. Certainly, not all customers would be willing to pay the extra cost for pre-printed lumber. Rather, the pre-printed lumber would represent only a small portion of the lumber market because of the extra cost of the printing.

The question, then, is "does the printed part of the order, in Day, get re-strapped?" Day does not say. There is no basis in the record for concluding that the printed lumber is strapped before shipment. Especially with such a small fraction of the typical order being marked, no conclusion can be reached, either in the art, or in the references. In patent procurement, silence in the art must be interpreted in favor of patentability.

But what is this other than an exercise in speculation? Hindsight reconstruction? The references clearly do not point to a (strapped) bundle of lumber, whereby Claim 1 holds additional patentability, separate and distinct from any decision regarding patentability of the remaining claims, separate and distinct from any decision regarding the other novel features of Claim 1.

Accordingly, Applicant submits that the rejection of Claim 1 to a bundle of marked lumber product cannot stand, and must be rejected on the basis of any one of the "bundle" limitation, the "visually conspicuous markings" limitation, and the indicating of " positions where the front and back surfaces" of the studs intersect the marked piece of lumber.

All Claims at Issue Are Patentable Over the References of Record

In view of the above arguments, applicant submits that all of Claims 1-11, 23-30, and Claims 65-77, are patentable over all references of record.

IX. APPENDIX OF CLAIMS (37 CFR §1.192(c)(9))

1. A bundle of framing lumber product, comprising:
 - (a) a plurality of elongate pieces of lumber operative to assist in layout and assembly of a wall, wherein such wall comprises a bottom plate and a top plate, and a plurality of dimension studs extending between the bottom plate and the top plate at one or more of a limited number of pre-determined stud spacings along the bottom plate and the top plate, wherein respective ones of said elongate pieces of lumber are operative for use in the bottom plate and/or the top plate, said respective elongate pieces of lumber having first and second ends and lengths therebetween, front surfaces and back surfaces, opposing sides extending between the front and back surfaces along the lengths thereof, and thickness dimensions between the front surfaces and the back surfaces, and between opposing sides thereof;
 - (b) a plurality of stud locator markings spaced along the lengths of said elongate pieces of lumber at one or more surfaces which assist in defining respective ones of the thickness dimensions, each said stud locator marking defining a position for placement, on the respective said elongate piece of lumber, of an end of a stud dimension lumber piece having opposing front and back surfaces and a thickness dimension therebetween, to be joined to the respective said elongate piece of lumber, the respective said stud locator markings on the respective said elongate pieces of lumber indicating the positions where the front and back surfaces of respective stud lumber pieces are to intersect the respective said elongate piece of lumber; and
 - (c) at least one strap securing said plurality of elongate pieces of lumber together as said bundle,

the stud locator markings being spaced from each other along the lengths of said elongate pieces of lumber at at least one of the limited number of pre-determined stud spacings and the markings indicating the positions where the front and back surfaces of respective lumber pieces are to intersect the respective said elongate piece of lumber being visually conspicuous so as to quickly catch the viewer's eye.

2. A bundle of framing lumber product as in Claim 1, said stud locator markings on units of said framing lumber product being spaced at about 8 inches leading edge-to-leading edge.

3. A bundle of framing lumber product as in Claim 1, said stud locator markings on units of said framing lumber product being spaced at about 16 inches leading edge-to-leading edge.

4. A bundle of framing lumber product as in Claim 1, said stud locator markings on units of said framing lumber product being spaced at about 24 inches leading edge-to-leading edge.

5. A bundle of framing lumber product as in Claim 1, variations in spacing between said stud locator markings on a respective said framing lumber product, and between respective ones of said framing lumber products, being consistently no more than .13 inch leading edge to leading edge.

6. A bundle of framing lumber product as in Claim 1, including sets of 2 side-by-side stud locator markings arrayed along the lengths of respective units of said framing lumber product.

7. A bundle of framing lumber product as in Claim 1, respective units of said framing lumber product being substantially devoid of any location marking indicators away from the stud locator markings.

8. A bundle of framing lumber product as in Claim 2, respective units of said framing lumber product being substantially devoid of any location marking indicators away from the stud locator markings.

9. A bundle of framing lumber product as in Claim 1, said stud locator markings extending substantially across the full widths of units of said framing lumber product, said units of said framing lumber product being devoid of other marking indicators extending more than half way across the widths of the framing lumber products.

10. A bundle of framing lumber product as in Claim 1, respective said stud locator markings having respective leading edge lines, trailing edge lines, and crossing lines between the leading and trailing edge lines.

11. A bundle of framing lumber product as in Claim 1, respective said stud locator markings having respective leading edge lines, trailing edge lines, and first and second crossing lines extending from respective leading edge lines to respective trailing edge lines.

12-22. (CANCELED)

23. A framing lumber product operative to assist in layout and assembly of a wall wherein such wall comprises a bottom plate and a top plate, and a plurality of dimension studs extending between the bottom plate and the top plate at one or more of a limited number of pre-determined standard stud spacings along the bottom plate and the top plate, said framing lumber product comprising:

- (a) an elongate piece of lumber for use in one of the bottom plate and the top plate, said elongate piece of lumber having first and second ends and a length therebetween, a front surface and a back surface, opposing sides extending between the front and back surfaces along the length thereof, and thickness dimensions between the front surface and the back surface, and between opposing sides thereof; and
- (b) a plurality of stud locator markings spaced along the length of said elongate piece of lumber at one or more surfaces which assist in defining respective ones of the thickness dimensions, each said stud locator marking defining a position for placement, on said elongate piece of lumber, of an end of a stud dimension lumber piece having opposing front and back surfaces and a thickness dimension therebetween, to be joined to said elongate piece of lumber;

the plurality of stud locator markings being spaced from each other along the length of said elongate piece of lumber at at least one of the limited number of pre-determined standard stud spacings,

each of the plurality of stud locator markings comprising marking material deposited directly on said elongate piece of lumber at a such respective surface which assists in defining a such thickness dimension of the respective said elongate piece of lumber, said elongate piece of lumber being substantially devoid of any marking indicators away from the stud locator markings.

24. A framing lumber product as in Claim 23, said stud locator markings being spaced at about 8 inches leading edge-to-leading edge.

25. A framing lumber product as in Claim 23, said stud locator markings being spaced at about 16 inches leading edge-to-leading edge.

26. A framing lumber product as in Claim 23, said stud locator markings being spaced at about 24 inches leading edge-to-leading edge.

27. A framing lumber product as in Claim 23, variations in spacing between said stud locator markings being consistently no more than 0.13 inch leading edge to leading edge.

28. A framing lumber product as in Claim 23, including sets of 2 side-by-side stud locator markings arrayed along the length of said framing lumber product.

29. A framing lumber product as in Claim 23, a respective said stud locator marking having a respective leading edge line, a trailing edge line, and crossing lines between the leading edge line and the trailing edge line.

30. A framing lumber product as in Claim 23, a respective said stud locator marking having a respective leading edge line, a trailing edge line, and first and second crossing lines extending from the leading edge line to the trailing edge line.

31-64. (CANCELLED)

65. A framing lumber product, comprising:

- (a) an elongate piece of lumber having first and second ends and a length therebetween, a front surface and a back surface, opposing sides extending between the front and back surfaces along the length thereof, and thickness dimensions between the front surface and the back surface, and between opposing sides thereof; and
- (b) a plurality of stud locator markings spaced along the length of said elongate piece of lumber at one or more surfaces which assist in defining respective ones of the thickness dimensions, each of said stud locator markings comprising a leading edge and a trailing edge, with the trailing edge of a first said stud locator marking being disposed toward a second said stud locator marking, and with the leading edge of the second stud locator marking being disposed toward the first stud locator marking, said leading edge and said trailing edge, on a given said stud locator marking, being separated by a distance generally defined by at least a standard nominal stud thickness,

the stud locator markings being spaced from each other along the length of said elongate piece of lumber at at least one of a limited number of pre-determined standard stud spacings,

each of the plurality of stud locator markings comprising marking material deposited directly on the respective said elongate piece of lumber at a such respective surface which assists in defining a such thickness dimension of the respective said elongate piece of lumber, the stud locator markings being visually conspicuous so as to quickly catch the viewer's eye.

66. A framing lumber product as in Claim 65, said stud locator markings being spaced at about 8 inches leading edge-to-leading edge.

67. A framing lumber product as in Claim 65, said stud locator markings being spaced at about 16 inches leading edge-to-leading edge.

68. A framing lumber product as in Claim 65, said stud locator markings being spaced at about 24 inches leading edge-to-leading edge.

69. A framing lumber product as in Claim 65, variations in spacing between said stud locator markings being consistently no more than 0.13 inch leading edge to leading edge.

70. A framing lumber product as in Claim 65, including sets of 2 side-by-side stud locator markings arrayed along the length of said framing lumber product.

71. A framing lumber product as in Claim 65, substantially devoid of location marking indicators away from said stud locator markings.

72. A framing lumber product as in Claim 66, substantially devoid of any location marking indicators away from the stud locator markings.

73. A framing lumber product as in Claim 65, said stud locator markings extending substantially across the full width of said framing lumber product, said framing lumber product being devoid of other marking indicators extending more than half way across the width of the framing lumber product.

74. A framing lumber product as in Claim 65, a respective said stud locator marking having a respective leading edge line, a trailing edge line, and crossing lines between the leading edge line and the trailing edge line.

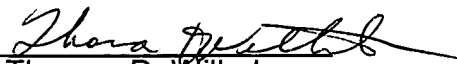
75. A framing lumber product as in Claim 65, a respective said stud locator marking having a respective leading edge line, a trailing edge line, and first and second crossing lines extending from the leading edge line to the trailing edge line.

76. A framing lumber product as in Claim 65, wherein the trailing edge of the first stud locator marking is separated from the leading edge of the second stud locator marking by a distance greater than the distance between the leading edge and trailing edge of said first stud locator marking.

77. A framing lumber product as in Claim 65, wherein a standard dimension stud can be placed on a surface of said elongate piece of lumber which bears said stud locator marking, at a said stud locator marking, so that neither of said leading edge and said trailing edge is completely covered on the respective surface.

In light of the fact that Applicant paid the fee for an Appeal Brief on August 19, 2002, and in light of the fact that no Appeal has reached the Board of Appeals and Patent Interferences, Applicant submits that no fee is due with this Appeal Brief. However, if any fee is due, or if any fee submitted herewith is deficient, or is missing, kindly charge any such deficiency, or credit any refund, to deposit account 23-2130.

Respectfully submitted,
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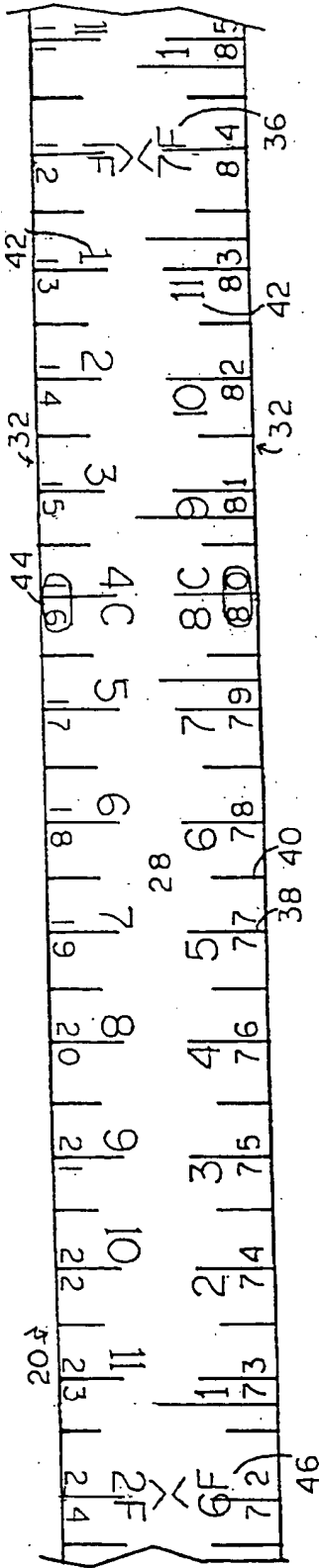


FIG. 2

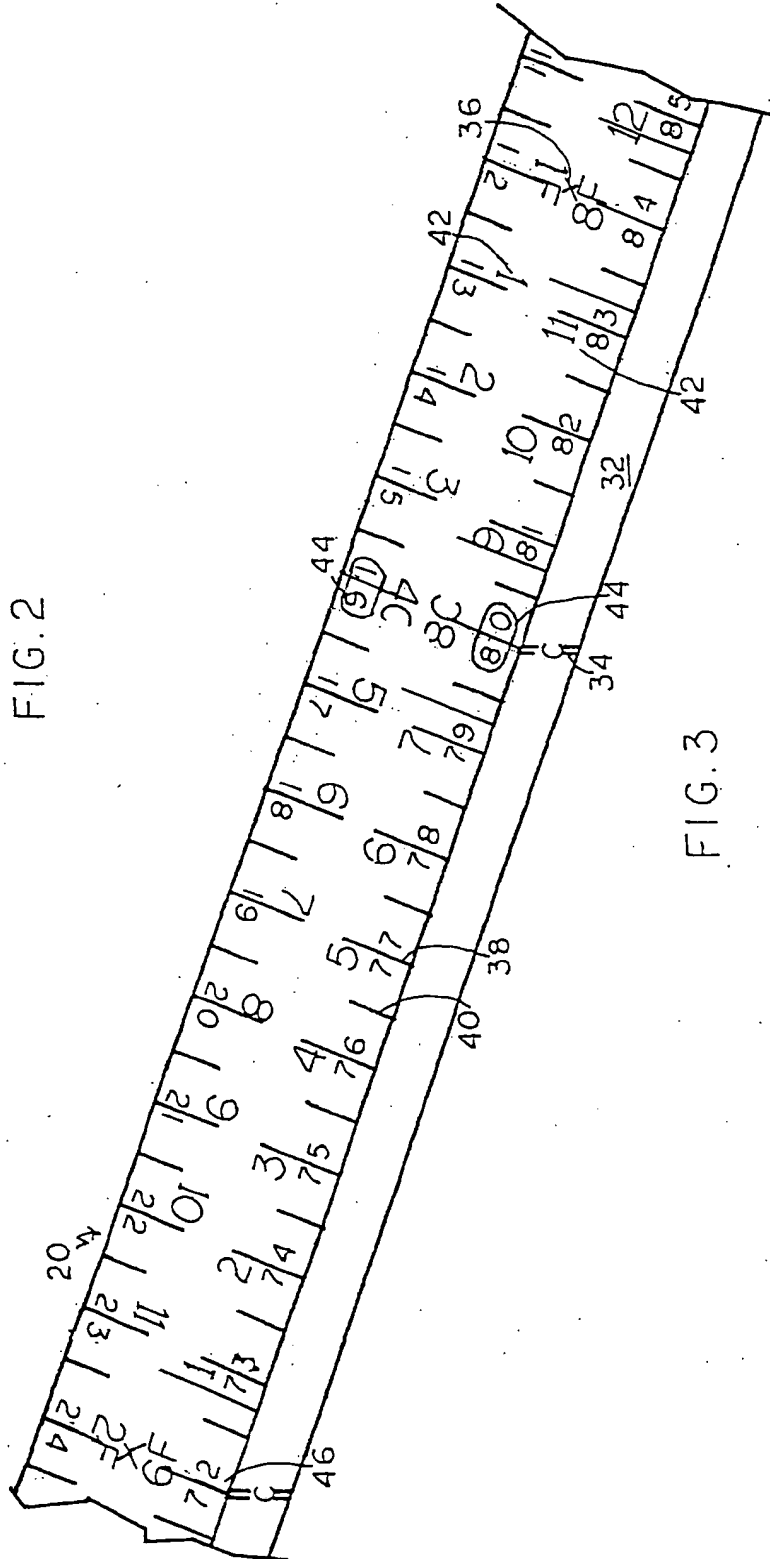


FIG. 3

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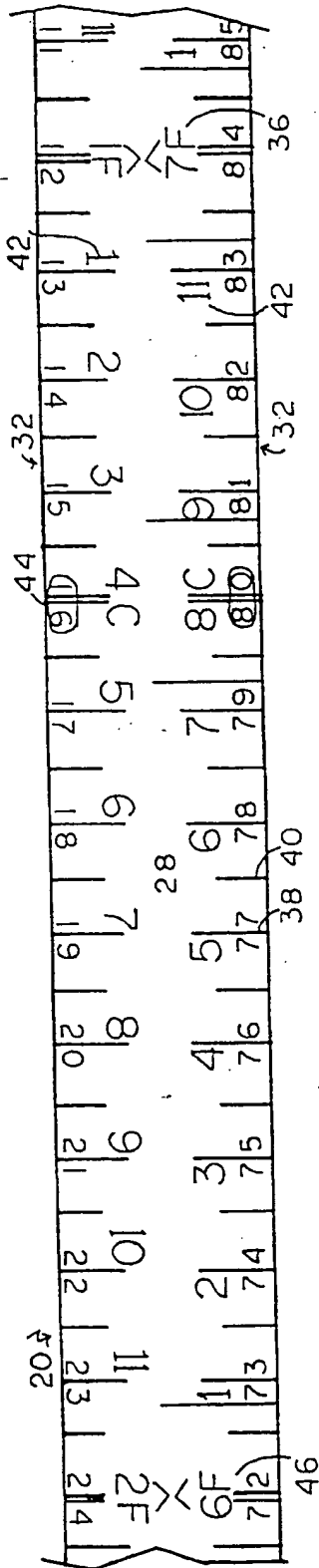


FIG. 2

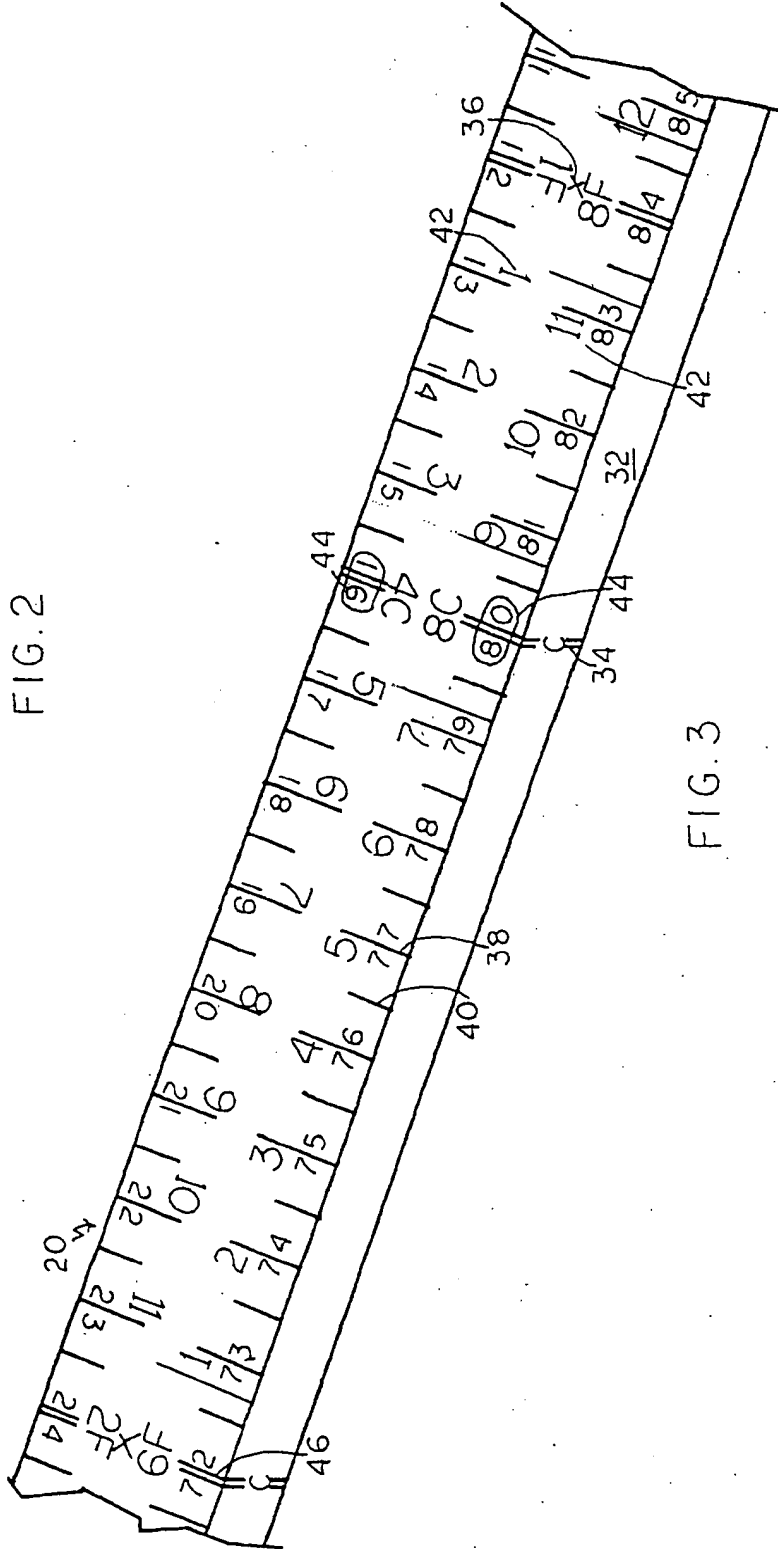


FIG. 3

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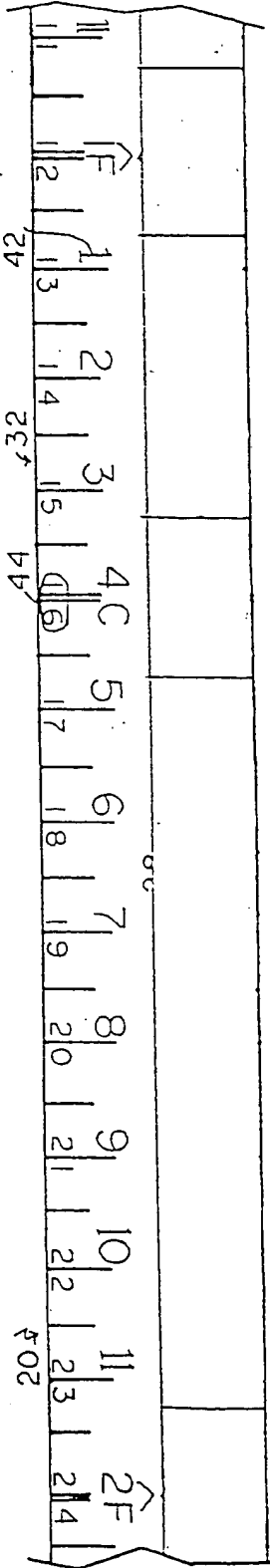


FIG. 2

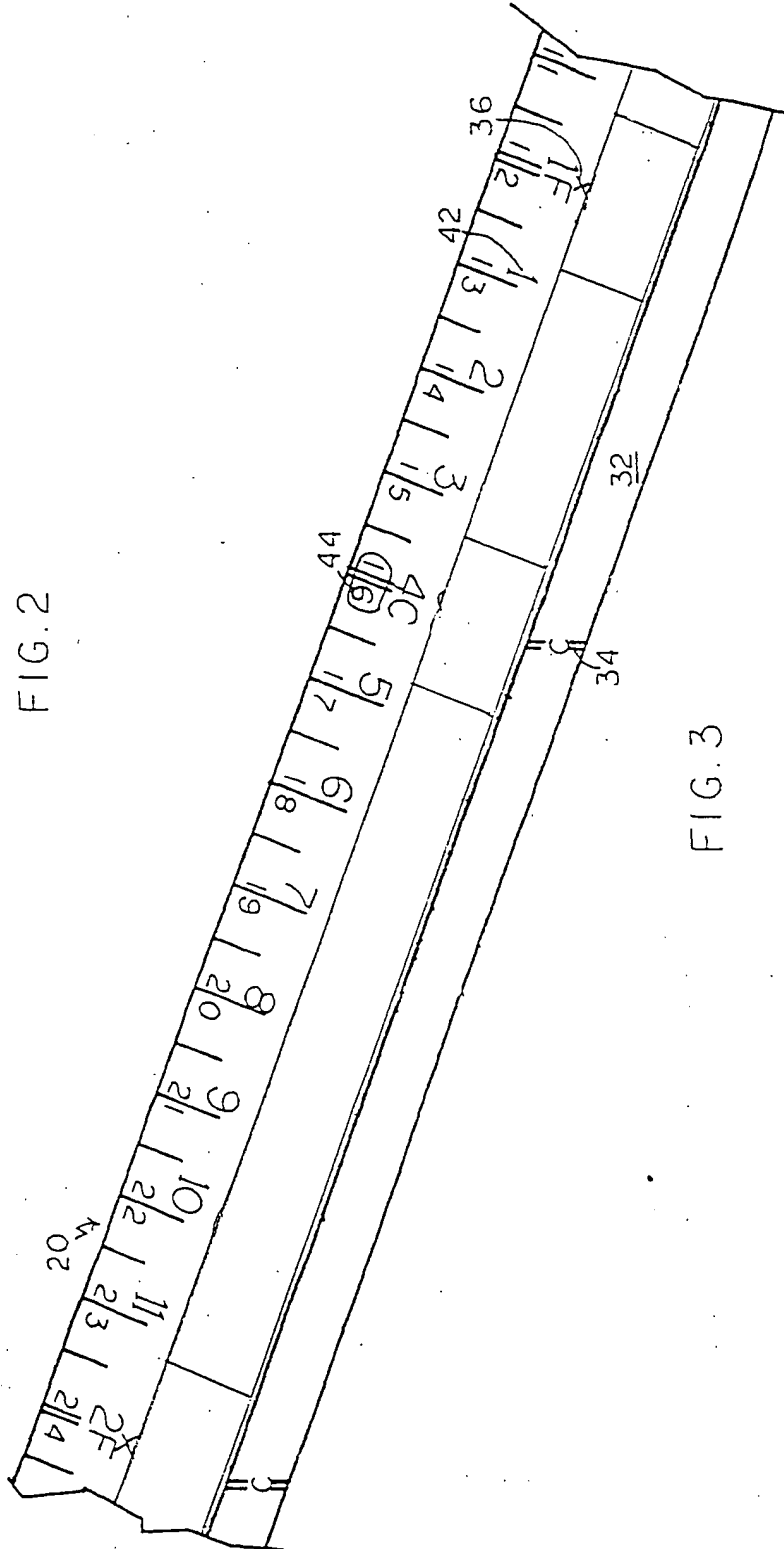


FIG. 3